

We Claim:

1. An in-tank fuel filter assembly comprising, in combination,

5 a filter body having first and second panels of filtration media defining an edge and providing an interior space between said first and said second panels of filtration media a peripheral seal along at least a portion of said edge,

10 said first and said second panels of filtration media comprising an outer layer of extruded mesh, a pair of layers of spun bonded filtration media and an inner layer of melt blown filtration media disposed between said pair of layers of spun bonded filtration media, and

15 a fitting secured to said first panel of filtration media for providing fluid communication with said interior space.

20 2. The in-tank fuel filter of Claim 1 wherein said filter body is formed of a folded swatch of multi-layer filtration media.

25 3. The in-tank fuel filter of Claim 1 wherein said filtration media is nylon, polyester, acetal or Teflon.

30 4. The in-tank fuel filter of Claim 1 wherein said spun bonded filtration media comprises filaments having diameters in the range of 50 to 200 microns and said melt blown filtration media comprises filaments having diameters in the range of 5 to 20 microns.

35 5. The in-tank fuel filter of Claim 1 wherein said melt blown media is fully contained within said spun bonded media thereby preventing migration of said melt blown media.

6. The in-tank fuel filter of Claim 1 wherein said fitting includes a resilient ring for securing said fuel filter to a fuel inlet.

5 7. The in-tank fuel filter of Claim 1 wherein said first and second panels of filtration media are point-bonded.

10 8. The in-tank fuel filter of Claim 1 wherein said outer layer of extruded mesh defines extruded filaments and includes bonds at a plurality of filament intersections.

15 9. A depth media fuel filter assembly comprising, in combination,

20 a closed body of filtration media having an interior and an exterior, said closed body having a first composite panel of filtration media and a second composite panel of filtration media, each of said composite panels of filtration media comprising an outer layer of extruded mesh and at least one inner layer of filtration material of one of spun bonded and melt blown filaments, and

25 an opening in said body for providing fluid communication with the interior of said body.

10. The depth media fuel filter assembly of Claim 9 wherein said closed body includes a folded edge and at least two sealed edges.

30 11. The depth media fuel filter assembly of Claim 9 wherein said layers of filtration media are point-bonded.

12. The depth media fuel filter assembly of Claim 9 further including a mounting fitting secured to said filter body about said opening.

35 13. The depth media fuel filter assembly of Claim 12 wherein said mounting fitting includes a spring

retainer for securing said filter assembly to an inlet fitting.

14. The depth media fuel filter assembly of Claim 9 wherein said spun bonded material has a filament size of about 100 microns and said melt blown material has a filament size of about 10 microns.

15. The depth media fuel filter assembly of Claim 9 wherein spun bonded and melt blown material is nylon, polyester, acetal or Teflon.

16. The depth media fuel filter assembly of Claim 9 wherein said extruded mesh includes filaments defining bonded intersections between adjacent filaments.

17. A in-tank fuel filter assembly comprising, in combination,

a body of filtration media having an interior and an exterior, said body having a first panel of filtration media and a second panel of filtration media, each of said panels of filtration media comprising a sandwich of an outer layer of ^{extruded} mesh, a region of spun bonded material and a region of melt blown material disposed adjacent said region of spun bonded material,

an opening in said body for providing fluid communication with said interior of said body, and

a fitting secured to said body about said opening for securing said filter assembly to an inlet fitting.

18. The in-tank fuel filter assembly of Claim 17 wherein said closed body includes a folded edge and at least two sealed edges.

19. The in-tank fuel filter assembly of Claim 17 wherein said mesh includes filaments defining intersections and said intersections include a bond between said filaments.

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20. The in-tank fuel filter of Claim 17 wherein
said spun bonded filtration media comprises filaments
having diameters in the range of 50 to 200 microns and
said melt blown filtration media comprises filaments
having diameters in the range of 5 to 20 microns.

21. The in-tank fuel filter assembly of Claim 17
wherein said spun bonded material has a filament size
of about 100 microns and said melt blown material has a
filament size of about 10 microns.

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